CLAIMS

We claim:

1. A method for making a chemically inflatable gas bag using technical grade acetic acid, water, and sodium bicarbonate, comprising:

diluting said acetic acid with water;

providing an HDPE bag;

pouring said diluted acetic acid into said HDPE bag;

sealing said HDPE bag wherein said diluted acetic acid is contained;

providing a PVA bag that is modified so as not to hydrolyze under alkaline conditions;

putting said sodium bicarbonate in said PVA bag;

sealing said HDPE bag wherein said acid is contained;

providing a nylon/PE bag; and

placing said PVA soluble bag and said HDPE bag within said nylon/PE

bag.

- 2. The method of claim 1, wherein said acetic acid is diluted with water to between about 8 and 30% v/v acetic acid.
- 3. The method of claim 1, wherein said acetic acid is diluted with water to between about 12 and 20% v/v acetic acid.
 - 4. The method of claim 1, further comprising:

providing a bag that is substantially impervious to water and acetic acid with small holes therein, and

placing said HDPE bag within said bag with holes before placing said HDPE bag within said nylon/PE bag.

5. The method of claim 1, wherein said nylon/PE bag has a first side, a second side, a top side, a bottom side, a first side edge, a second side edge, and two bottom corners, said method further comprising:

folding the bottom corner of said first side diagonally inward;

folding the bottom corner of said second side diagonally outward;

folding said first side edge inwardly along a first line substantially parallel to said first side edge of said gas bag;

folding said second side edge outwardly along a second line substantially parallel to the first line;

folding said first side inwardly along a third line substantially parallel to said first line and between said first line and said second line; and

folding said second side outwardly along a fourth line substantially parallel to said second line and between said second line and said third line.